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Reducing bias in psychometric assessment of culturally and linguistically diverse students from refugee backgrounds in Australian schools: A process approach

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Abstract

The present article examines a process developed within Brisbane Catholic Education to reduce bias in assessment of students from refugee backgrounds when there is a concern about a possible intellectual disability. Several factors impacting upon assessment are described including previous trauma, language, lack of previous schooling and acculturation difficulties. A proactive process (Support Process for the Assistance and Assessment of Students from Refugee Backgrounds) is described involving broad-based, longitudinal collection of data by the school psychologist as part of a support team. Factors to consider in conducting standardised psychometric assessments are discussed. Strengths and limitations of this process as well as the need for future research into its effectiveness are summarised.

Key words: *Cultural diversity, intellectual disability, mental health, psychological assessment, refugees, school.*

Since the mid 1990s a high proportion of students from refugee backgrounds enrolling in Australian schools have presented with especially high needs. In particular, African refugees have been described as having educational needs never before encountered in previous humanitarian flows to Australia (Taylor, in press). Students from refugee backgrounds may display differences that are sometimes misinterpreted as disabilities due to their unique experiences of stress and trauma and missed opportunities for schooling (Collier & Hoover, 1987).

Psychologists are sometimes called on to assess students from refugee backgrounds due to concern about a possible intellectual disability. Standardised IQ tests, adaptive behaviour assessments and clinical judgment are required to diagnose intellectual disability in Australia. But language, culture, acculturation, trauma and previous experiences make it impossible to be entirely certain that the results of any standardised assessment, including tests of non-verbal intelligence, are unbiased and non-discriminatory. The test context and materials, the language of administration and scoring criteria are all influenced by culture (Sattler, 1992). The use of adaptive behaviour scales with culturally and

linguistically diverse (CALD) students has similarly been criticised (Baca & Cervantes, 1978). Despite these acknowledgments, there is current concern that students from refugee backgrounds in Australia may be identified as having an intellectual disability as a result of their performance on Western measures of cognitive ability (Whitelaw, 2008).

There is very little research on appropriate cognitive assessment processes for students from refugee backgrounds, and current literature relates more broadly to all English-language learners (e.g., Garcia & Ortiz, 1988; Oregon Department of Education Office of Special Education [ODEOSE], 2001; Rhodes, Ochoa, & Ortiz, 2005). In this article a process is described for supporting all students from refugee backgrounds and, when a referral is made to a school psychologist, there is a further, collaborative assessment approach that aims to be non-discriminatory. The process is most ideally suited to school psychologists and it is argued that they require a high level of expertise in student diversity and learning (Ysseldyke et al., 1997, 2006). Psychologists assessing students from refugee backgrounds outside the school system, however, also need an understanding of the impact of culture, second language

acquisition and other issues faced by learners from refugee backgrounds. Further, information needs to be gathered from a variety of relevant stakeholders to conduct a valid assessment process.

Difficulties in the current psychometric assessment process of students from refugee backgrounds

Current assessment guidelines for the diagnosis of intellectual disability in Australia require an individual to score ≤ 70 on an individually administered IQ test and to display deficits in at least two areas on an adaptive behaviour scale. It is also recommended in the *Diagnostic and Statistical Manual fourth edition—Text Revision* (American Psychiatric Association, 2000) that a complete medical, family, social, and educational history is compiled from existing medical and school records (if applicable) and from interviews with parents. This practice is disability focused rather than intervention focused and despite the additional recommendations, students from refugee backgrounds are likely to be overrepresented among those diagnosed with intellectual disability unless there is a change in the current process used by most psychologists. This assertion is supported by the fact that in the United States there is already a disproportionate representation of ethnically and linguistically diverse students in special education (Rhodes et al., 2005).

A significant issue is how well cognitive assessments can be used across cultures. There is little available research investigating the combined impact of CALD background and refugee experience upon cognitive test performance. It is well documented, however, that the validity of standardised cognitive assessments may be affected when applied in cultural settings in which those instruments were not developed and normed (Arnold & Matus, 2000; Artioli & Fortuny & Mullaney, 1998). Previous research has shown that differences in cultural background including experience of schooling, level and quality of education, conceptions of intelligent behaviour, test-taking experience, proficiency in the language of the instrument, experience in the culture in which the instrument was developed, and attitudes to timing and competition are some of the factors that may influence scores on both verbal and non-verbal IQ assessments (Anderson, Sachdev, Brodaty, Trollor, & Andrews, 2007; Ardila, 2005; Ardila & Moreno, 2001; Greenfield, 1997; Nell, 2000; Rosselli & Ardila, 2003; Shuttleworth-Edwards et al., 2004; Sternberg, 2007). Even performance on non-verbal measures that have been considered to be “culturally fair” such as Block Design and the Wechsler Adult Intelligence Scale-Third Edition Matrix Reasoning Test have been shown to be

influenced by cultural experience (Ardila & Moreno, 2001) and linguistic fluency (Dugbartey et al., 1999). Greenfield (1997) suggested that without understanding the culture of origin, the psychologist will have great difficulty understanding how a respondent’s cultural background and response to the assessment task may impact upon performance.

Solutions proposed to these issues include (a) sharing of the same cultural background by the examiner and examinee or that the examiner be familiar enough with their background to be able to interpret results in a culturally relevant manner, (b) use of culturally appropriate strategies in relation to the assessment setting, (c) use of statistical procedures to detect cultural bias, (d) redevelopment of cognitive tests to make them relevant to cultural conditions; (e) obtaining of appropriate norms for different cultural groups, and (f) careful examination of which tests are more “cross-cultural” than others, to ensure that the selected test considers the specific cultural idiosyncrasies (Ardila, 2005). Ardila also states that it is appropriate to conduct psychometric cognitive testing only in societies with a solid psychometric tradition, namely, Western societies. He proposes that in other societies, behavioural scales and more qualitative approaches are more relevant.

Valid interpretation of cognitive assessment data relies upon identification and understanding of factors contributing to a student’s language development and learning ecology and how these issues impact on the ability to succeed in school. When examining the barriers to success in learning for students from refugee backgrounds, there are further issues to consider. Therefore, comprehensive assessment should include examination of the student’s history, including exposure to trauma and current emotional state, previous schooling experiences, language and literacy issues, learning ecology, cultural factors and level of acculturation (Fraine & McDade, 2008).

Issues impacting on well-being and performance of students from refugee backgrounds

Trauma

Students from refugee backgrounds have often experienced severe hardship and trauma, including physical abuse, poverty, malnutrition, family separation and witnessing of violence. These experiences impact upon the process of cognitive, emotional, social and physical development (Queensland Program for the Assistance of Survivors of Torture and Trauma [QPASTT], 2007). Children may display trauma reactions in a variety of ways including anxiety, helplessness, loss of control, nightmares,

guilt and shame. The extent to which a child develops post-traumatic symptoms depends upon a number of factors, including their experience of traumatic events as well as their age at the time when these events occurred (Victorian Foundation for Survivors of Torture [VFST], 2007). Individuals who were born in Australia or who were young when they arrived, may also display trauma responses as a result of living the trauma vicariously through their parents' and/or other elders' experiences. Because the ability of a student to learn and remember new information and to progress academically in a classroom is often reduced by poor health or by anxiety, hypervigilance, fatigue and poor concentration associated with PTSD, it is important to rule out these factors when cognitive ability is being examined.

Although the impact of trauma can have serious and long-term consequences, many refugees are successful in adapting to life in their new country (Brisbane Catholic Education [BCE], 2008; Shakespeare-Finch & Wickham, in press). Hence focusing on post-traumatic growth (Znoj, 2005) will increase our understanding of individuals from refugee backgrounds as a group of people with lives that have potential beyond their previous experiences. For those requiring assessment, however, once trauma is ruled out, it is important to ascertain the impact of broader issues, such as health (Brough, Gorman, Ramirez, & Westoby, 2003), language acquisition, education and acculturation.

Lack of previous schooling

Students from refugee backgrounds have frequently experienced disruptions to their formal education as a result of long periods of instability, geographical dislocation and the breakdown of social structures (VFST, 2005). Indeed some students have had no access to school, which is significant given that the amount of schooling experienced is the strongest predictor of second language acquisition (Thomas & Collier, 1997). Other consequences of lack of schooling include poorly developed first language and literacy, hampering the ability to learn a second language; and lack of skills for learning in a classroom, including sitting still, social behaviour, organisational skills and adjustment to different styles of discipline. These issues can cause significant loss of self-esteem and/or behavioural difficulties. Specific instruction and skilling in these areas may be necessary to ensure success for these students (VFST, 2007).

Second language learning factors

Success in second language acquisition is integral to performance on any cognitive assessment, and for

this reason it is important to understand the underlying process involved. Migrant students learning English as an additional language in an English-speaking country progress through five stages of acquisition, concluding at 5–7 years with advanced (or near native) fluency (Krashen & Terrell, 1983). By this time, students are usually able to fully access the language of the curriculum in the classroom (Cummins, 1984). Students from refugee backgrounds are unlikely to develop advanced fluency within 5–7 years due to disrupted language development on their refugee journey. In fact, the process of understanding academic language can take ≥ 10 years to develop for those who have not had the opportunity to develop adequate first language skills (Thomas & Collier, 1997). Success in social and academic English proficiency is likely to be further impacted upon by the level and quality of support received by the student in class activities (BCE, 2009; S. Ortiz, personal communication, 18 February 2008).

Cognitive assessments are influenced by linguistic factors to varying degrees (Artiola i Fortuny & Mullaney, 1998). Non-verbal tests are sometimes used to reduce language bias, although issues of validity in relation to other difficulties (culture, educational status of students from refugee backgrounds and acculturation) still exist (Arnold & Matus, 2000; Dugbartey et al., 1999; Greenfield, 1997; Rosselli & Ardila, 2003).

Some assessment of cognition in a student's first language should be made before an intellectual disability can be determined. Unfortunately there are many limitations that make it almost impossible to conduct first language assessment with students from refugee backgrounds in a standardised way. In order to do this, the test would need to be translated and normed into the student's first language and culture and an interpreter who is fully trained in using the particular assessment should administer the test (Artiola i Fortuny & Mullaney, 1998; Miletic et al., 2006). Some attempt, however, must be made to determine a student's ability to communicate and problem solve in their first language, and issues in relation to use of interpreters need to be carefully considered.

Culture

In addition to language, cultural knowledge forms the necessary context for understanding performance. Ardila (2005) describes a number of cultural factors that may influence and cause variation on performance in cognitive assessments including non-verbal tests. These include motivation to perform, which may not be as salient when students come from a society in which cooperation is valued more highly than competition. Anxiety, as a result of the

unfamiliar testing situation, relationship to the examiner, and variations in conceptual knowledge (e.g., the protection of animals may have a different meaning in Australia to its meaning in a traditional hunting society; blocks and jigsaw puzzles may be unfamiliar) are all contributing factors to performance (Ardila, 2005).

The availability of norms needs to be taken into account when assessing any CALD student (Berry, Poortinga, Segall, & Dasen, 1992). The country of origin of a student from a refugee background is often not well (and arguably, not at all) represented in the norming sample for a standardised assessment. If it is represented at all, then a sample based on race differs to one based on culture (Flanagan & Ortiz, 2001). This notion is further complicated by the large differences existing within cultures in relation to beliefs, education and socioeconomic status (Valencia & Suzuki, 2001). Even if these issues are taken into account, however, acculturation is a further variable that needs to be considered (Berry et al., 1992).

Acculturation

Acculturation can be understood as the process of moving to, living in and adapting to a culture different from one's culture of origin (Poppitt & Frey, 2007). Although many refugees demonstrate enormous resilience in terms of their ability to adapt in a new country despite obvious challenges, stress arising as a result of acculturation can have a significant impact on their health and behaviour (Poppitt & Frey, 2007). Challenges include adjusting to a new culture, language, education system and social environment (Rutter, 2001). Students carry with them the stress and anxiety of resettlement felt by the family, which may impact on their levels of self-esteem, socialisation, language development and their readiness to learn.

Assessment of cognitive functioning in students from refugee backgrounds: Applicability of standardised assessment tools

It is imperative that psychologists understand the complexities that students from refugee backgrounds experience both in and out of school and how these factors influence assessment performance. Once these issues are understood, the psychologist is faced with making the decision of how to most fairly assess the student when there is a question about a possible disability. In any population there will be a number of individuals with an intellectual disability and therefore an attempt must be made to conduct an assessment process in the most non-discriminatory way possible.

Given that it can potentially take more than 10 years to develop academic language for those who have had poor opportunities for first language development (Thomas & Collier, 1997), verbal tests administered in English are unlikely to be valid for this population. Using standardised tests, which rely heavily on language ability (e.g., Wechsler Intelligence Scale for Children-IV; Wechsler, 2003) to assess and diagnose any student from a refugee background is problematic, as it is for any CALD student (ODEOSE, 2001).

A variety of non-verbal assessments are currently available and some of them have included multiracial groups in their norming process (e.g., the Universal Non-verbal Intelligence Test [UNIT]; Bracken & McCallum, 1998). In considering use of a non-verbal standardised test for any individual, however, the similarity of the cultural group used in the norming process to the individual concerned must be considered. Differences in previous educational experience and other opportunities further complicate this issue. In other words, cultural and other elements impacting upon test performance vary considerably and multiracial norming does not necessarily translate to valid assessment use across all cultures and groups. For example, for many students from refugee backgrounds, there is very little chance of finding a non-verbal test that is normed either in the language, culture or experiential background of the student. This makes it very difficult to accept the assessment as valid and therefore any assessment that is performed needs to be supported by a well-considered and documented variety of additional data (Artiola i Fortuny & Mullaney, 1998).

Development of the support process for assisting and assessing students from refugee backgrounds

In mid-2005 the need to provide guidance counselors with a valid and non-discriminatory process to assess students from refugee backgrounds when there was a referral involving cognitive assessment became evident. During this period, 39% of new arrival enrolments in BCE schools were coming from a refugee background, predominantly from African countries. Specifically, some guidance counsellors stated that current psychometric assessment tools were not always useful to inform decisions about diagnosis of intellectual disability of students from refugee backgrounds. Further, they said that they required more knowledge in relation to culture, language and refugee issues in order to conduct appropriate assessments. Following this initial consultation, it was evident that a comprehensive, broad-based and process-oriented approach needed to be developed to respond to these challenges.

As a result of examination of best practice research on assessment of CALD students (Cummins; 1984; Garcia & Ortiz, 1988; Rhodes et al., 2005) and research into the needs and difficulties experienced by students from refugee backgrounds (e.g., Rutter, 2001), a document incorporating the four-stage Support Process for the Assistance and Assessment of Students from Refugee Backgrounds (SPAASRB; BCE, 2008) was developed. This process consists of stages to support all students from refugee backgrounds in their learning and further guidelines for appropriate assessment where required. Additionally, the document provides a significant amount of educational literature on refugee issues, culture and language development to aid in the understanding of these areas.

To summarise the process, it is proposed that all students from refugee backgrounds are supported in their academic and social learning with the assistance of a collaborative support team approach. Previous authors have suggested using such an approach to assist all CALD students (Chalfant & Pysh, 1981, cited in Garcia & Ortiz, 1988). Following enrolment, an action plan is developed, the resulting intervention is monitored and evaluated and further instructional interventions are then planned. If this process is effective it can help distinguish between students who are not achieving academically due to background factors and/or environments that do not accommodate differences or learning styles, and students who have a disability that interferes with their learning processes. Then, if there is a need for further assessment, this can be done with information that gives a clear picture of the student's needs across time in a variety of contexts (ODEOSE, 2001). In other words, information about student progress collected since the time of enrolment becomes part of the assessment data. The stages of the model are described in detail below and illustrated in Figure 1.

Stages in the model

Stage 1. School enrolment and appointment of student assistance team

It is important to identify and support the needs of students from refugee backgrounds from the time of enrolment in their new school, to maximise their access to the curriculum and sense of security in their new environment. Relevant information can be collected during the enrolment process with the assistance of interpreters and English as a second language (ESL) support staff. A cultural liaison officer can provide advice on cultural and government agency assistance. Translated information packages such as the *Welcome Package* developed by QPASTT in conjunction with BCE (St Brendan's

Catholic Primary School, Moorooka, 2007) are useful in helping families understand processes within the school system. Following enrolment, the principal can appoint a student assistance team (SAT) and a case manager to formulate an initial plan of support. The SAT should always include the principal, classroom teacher, ESL teacher and parents, and often includes the learning support teacher. The guidance counsellor and the cultural liaison officer may be included at this stage, depending upon perceived needs.

Stage 2. Data collection

Data are collected over the first 4–6 weeks following enrolment for the purpose of informing specific interventions to assist students from refugee backgrounds to access academic learning. Members of the SAT collect a variety of data. For example, the classroom teacher observes classroom learning processes, the ESL teacher assesses the student on the National Language and Literacy Institute (NLLIA) bandscales (McKay, Hudson, & Sapuppo, 1994) and the guidance counsellor may investigate any immediate social emotional needs or difficulties. It should also be established whether a medical assessment has been conducted. Once data have been gathered, the planning stage can be initiated.

Stage 3. Planning

Longer term intervention plans ensure that the class teacher is supported in providing for the specific needs of students from refugee backgrounds and that learning progress can be tracked. In the planning stage, the SAT share and use the data to develop a teaching and learning adjustment plan (TALAP). Planning involves and is shared with parents as appropriate. This plan outlines necessary adjustments for class activities as well as other support structures to enable the student to access the broader curriculum. The TALAP is implemented and then reviewed and updated on a regular basis as the needs of the student change. If a student is not progressing as would be expected, then instructional strategies and materials should first be investigated (Garcia & Ortiz, 1988). If systematic efforts have been made to implement appropriate teaching and learning strategies and the student is still not responding as expected, then a further assessment process involving the guidance counsellor may be undertaken.

Stage 4. Assessment of students from refugee backgrounds who require further investigation

When the use of standardised assessments is considered to be discriminatory or biased, additional

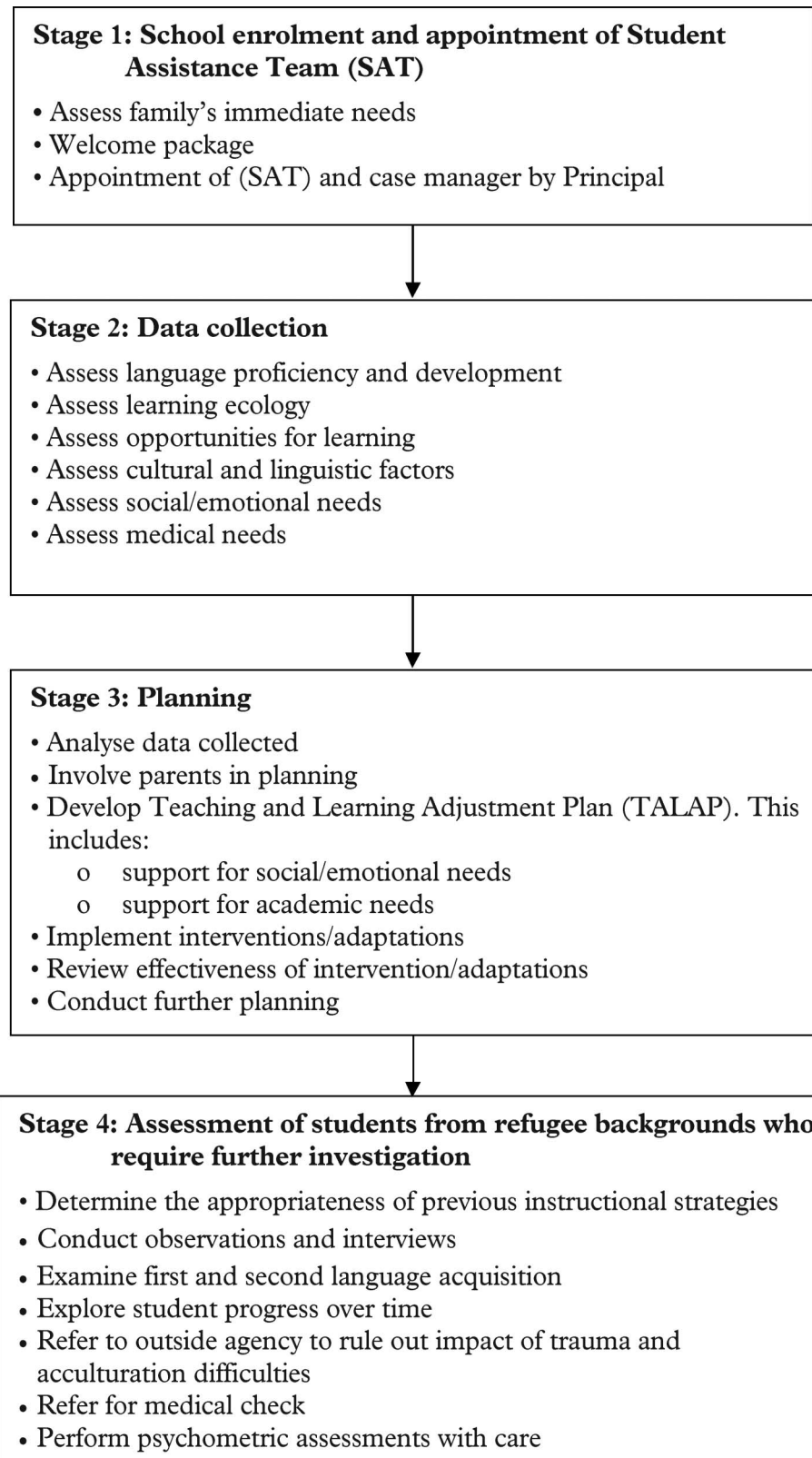


Figure 1. Support process for students from refugee backgrounds. SAT = student assistance team; TALAP = teaching and learning adjustment plan.

alternative assessment procedures can be incorporated, including a number of more process-oriented methods of gaining an understanding of student

abilities (ODEOSE, 2001). The purpose of using supporting data is not to replace psychometric testing, because this remains a systemic requirement.

Qualitative data, however, can provide a more reliable picture of student ability, thereby increasing confidence in standardised assessment results (Fraine & McDade, 2008). These procedures can be multi-faceted, including functional assessment data that can be tracked over time to indicate progress. Data may include but is not limited to curriculum-based assessment, work samples, checklists, data from interviews, observation notes and information provided by the student's family. The emphasis is on what a student can do rather than what a student cannot do. Broad-based assessment is therefore likely to give the most valid information in regard to students from families of refugee backgrounds. More specifically, the following processes can be used to gather comprehensive data.

Observations and interviews. Observations can be conducted in a number of different settings such as the classroom, playground and, where possible, in the home environment. Useful qualitative data can also be gained from the student's family as well as by interviewing other adults who know the student well, including those who have worked with the student in their first language. An example of when this may be beneficial is when a student does not speak in English after an expected period of time. Exploration of the possibility that this is due to shyness rather than poor language development can be assisted by the use of this type of process.

Language assessments. Students may be referred for cognitive assessment on the basis of oral language difficulties that may stem from limited English language skills rather than cognitive deficits (Ochoa, Robles-Pina, Garcia, & Breunig, 1999). Hence, "The interpretive validity of assessment data rests squarely on the proper identification and understanding of the child's entire linguistic history as well as other factors influencing the development of both languages" (S. Ortiz, personal communication, 18 February 2008). For this reason, some estimation of a student's competence in skills requiring use of their first language must be made, remembering that for students from refugee backgrounds, their ability to learn their first language has sometimes been hampered by conditions in their country of origin.

An assessment of progress in second language acquisition using ESL scales (e.g., NLLIA band-scales; McKay et al., 1994) within the areas of speaking, listening, reading and writing also provides vital data for decision making. The scales describe English-language development of all ESL learners in the context of their mainstream schooling in ways that will promote valid assessment and reporting of ESL progress.

The following steps can aid in determining whether difficulties are due to a language issue as a result of ESL factors or whether a disability may be preventing the student from achieving academic success.

1. Review the student's first language development, as well as current exposure to and support for the use of their first language at home. This is relevant because it has some influence upon the acquisition of the English language. Packages such as *First Language Assessment Tasks* can be useful to assist in this process (Department of Education, Employment and Training, 2000).
2. Review the process of learning English in terms of the student's development of social and academic language acquisition, remembering that these are dependent upon first language learning (Thomas & Collier, 1997). The NLLIA band-scales (McKay et al., 1994) or similar ESL scales can be used for this purpose.
3. Perform some qualitative assessment of cognitive skills in the student's first language using a trained interpreter. This qualitative assessment can be done with a trained interpreter who is familiar with the education system and the culture of the student. A preliminary briefing session with the interpreter is required before any such assessment can be conducted. Further information can also be gained from family members in relation to the student's communication outside of the school setting.

Tracking of student progress over time. Data can be gathered over time using a variety of methods in many contexts to formulate a picture of the student's learning map. This can be achieved by monitoring progress and achievements through the use of ESL scales, class curriculum outcomes, functional assessments, dynamic assessments and response to intervention (RTI) models.

Dynamic assessment models can be useful in providing a measure of what a student is able to achieve over time with appropriate academic and language support (e.g., Berman, 2007; Sternberg, 2007). RTI models can be used to determine the extent to which a student is able to respond to particular intervention (Klinger & Edwards, 2006). Further, standardised tests can also be used informally to provide useful information about what a student can and cannot do using a dynamic assessment process, with results and observations written in narrative form (Jitrendra & Kameenui, 1993, cited in ODEOSE, 2001). These models are in contrast to standardised assessments that investigate what a student is able to do at a particular point in time.

Creating a student's learning map of progress provides valuable information in the discernment of ESL-related factors from disability, when presented with concerns relating to a student's academic progress.

Referral to outside agency to examine impact of trauma and acculturation issues. The impact of previous trauma can present as learning and/or behavioural difficulties and this area needs to be ruled out as a primary cause before further cognitive assessment is considered. Acculturation stress can also cause significant behavioural, emotional and learning issues. Families from refugee backgrounds may not ever have had access to specialists in their home country and therefore additional language and cultural challenges may exist, as well as significant issues relating to trust of practitioners with whom they are unfamiliar. Referral to appropriate agencies, such as QPASTT, which have familiarity in working with refugees is crucial.

Medical check. It is imperative to rule out any contributing medical issues as part of a comprehensive assessment. Sight and hearing tests may have been overlooked or inappropriately assessed in the past. For example, it may be assumed that vision has been assessed when, in fact, a student who had a health check shortly after their arrival in Australia may not have been tested due to difficulty in reading the English alphabet charts used by the practitioner.

Careful use of standardised assessment tools.

- Non-verbal intelligence tests. Non-verbal intelligence tests include the Comprehensive Test of Non-verbal Intelligence (Hammill, Pearson, & Wiederholt, 1996), the UNIT (Bracken & McCallum, 1998), the Wechsler Non-Verbal (WNV; Wechsler & Naglieri, 2006) and the Raven's Standard Progressive Matrices (Raven, 1992). Such tests are used routinely with CALD students. Although useful information can be gained about what a student is able to do from such assessments, limitations as discussed earlier in this article need to be recognised.

Development of literacy practices can also influence answers on some non-verbal assessments. For example, a student who has learned to write in Arabic writes from right to left. Hence in the Picture Arrangement subtest on the WNV test, the student may arrange the pictures from right to left in order to tell their story.

- Adaptive behaviour scales. Adaptive behaviour assessments (e.g., the Adaptive Behaviour Assessment System II [ABAS-II]; Harrison & Oakland, 2003) have many limitations in terms of cultural specificity. Cultural norms must be taken into

account if adaptive behaviours are to be used as an assessment tool in diagnosing intellectual disability. Notes on cultural norms have been written for each item for both the ABAS-II (Harrison & Oakland, 2003) and the Assessment of Adaptive Areas (AAA) (Bryant, Taylor, & Rivera, 1996) for use with students coming from Sudan (Fraine, Fraser, Ryan, & Yor, cited in BCE, 2008). For example, regarding the use of table utensils in the AAA, Sudanese families commonly eat with their hands, so individuals should be scored according to this cultural practice. In relation to questions about money in the ABAS-II, young Sudanese children are often not taught about money at home because the teaching of other skills is prioritised in their culture. Parents may see this as the school's responsibility to teach. It is also important to remember that in relation to adaptive behaviours, there are sometimes greater within-culture differences than between-culture differences, so that it is important to examine individual family practices and values before reaching conclusions.

Broad-based and authentic data collection as described above is likely to result in a more valid understanding of the cognitive abilities of a student from a refugee background. The aim is to reduce bias so that when standardised tools are used, they are viewed as supporting data to provide evidence about what is already known, rather than providing new information. Because of the serious difficulties in using standardised assessments with students from refugee backgrounds, it is generally considered unnecessary to use such instruments except in cases in which longitudinal data collected by the SAT (including the guidance counsellor) already support the hypothesis that an intellectual disability exists.

Discussion

This article describes a process that assists school psychologists to assess students from refugee backgrounds when there is a question about their cognitive ability. SPAASRB is similar to other best-practice assessment processes (e.g., ODEOSE, 2001) suggested for use with all CALD students. But because students from refugee backgrounds can have significant needs beyond those of other migrant students, additional processes are included. In particular, the ruling out of first language development issues, trauma and acculturation difficulties are significant additions. Further, embedding the assessment process in the broader four-stage support model ensures that longitudinal data are readily accessible. Finally, the process of using the SAT increases the likelihood of effective instruction, which can often be a barrier to student success, thereby leading to assessment results that are not valid.

Strengths and limitations of SPAASRB

One of the greatest strengths of this approach is that it makes explicit the difficulties with current assessment processes for students from refugee backgrounds when there is a question about intellectual disability. Further, an assessment process is described that is likely to reduce bias in cognitive assessment for this population. Some literature has examined the challenges faced by students from refugee backgrounds that can lead to poor learning outcomes (Rutter, 2001). CALD refugees, however, have additional needs (e.g., poor first language development is more likely to be a factor hampering academic success than it is for other migrant students, VFST, 2007), suggesting that additional assessment processes are necessary. Currently there is limited previous research regarding specific assessment processes for this population. A small number of 'non-discriminatory' assessment models, however, have been developed for use with minority CALD populations (ODEOSE, 2001; S. Ortiz, personal communication, 18 February 2008). The assessment process in this article differs from previous models in that it has been developed specifically to meet the assessment needs of CALD students from refugee backgrounds.

Another advantage of SPAASRB is that it is embedded in a support team approach. Teachers can engage in collaborative problem solving with other team members to develop interventions that result in better outcomes for students (Eber, Sugai, Smith, & Scott, 2002). The SAT can also be a significant source of student data when a psychologist working outside of the school system who has only a minimal understanding of refugee and CALD issues is asked to conduct an assessment. In these situations, the psychologist is able to work with the SAT to broaden their information gathering process. This is important, because the understanding of second language acquisition and other CALD and refugee issues has not been well covered in psychology training in Australia to date. Research also suggests, however, that there are potential risks within the use of support teams in schools.

Knotek (2003) identifies a number of sources of bias in support team problem-solving, including a tendency to focus on student factors as opposed to ecological factors, and a dominance of the views of socially influential support team members. If support teams are to function effectively, these issues must be addressed.

The greatest limitation of SPAASRB is the amount of time, money and resources that are required to ensure that the assessment is valid and non-discriminatory. This is a difficult issue because assessment that does not involve broad-based long-

itudinal data as well as an understanding of the complexity of issues faced by learners from refugee backgrounds, is less than adequate. Hence, as long as funding is linked to diagnosis, determining the availability of resources for appropriate assessment remains a significant challenge.

A further issue is that there is no identifiable research suggesting to what extent a support team approach is needed to support the learning of all students from refugee backgrounds. For example, a child who is a new arrival to Australia when they are of school age is likely to require use of the SAT. It is not known, however, whether a child who is 3 years old when their family arrives would need a SAT, nor a child who is 1 year old on arrival, but whose family is still experiencing major settlement and acculturation difficulties. Research is therefore needed to determine the factors that lead to the need for SAT involvement. For example, one of the main variables in relation to needs of preschool-age new arrivals may be teacher competence in teaching refugees and other CALD students.

Future directions

It is argued that the additional steps described in this article are likely to reduce bias in the assessment of students from refugee backgrounds. Therefore, there is a clear need for further evaluation of SPAASRB, including the assessment process. The aim of this evaluation should be to determine improvements in outcomes for students, validity of assessment data, and long-term costs and benefits. At present there are plans to evaluate the SPAASRB process within BCE, and some initial feedback has been recorded in some of the schools where the process has been trialled.

Further research into current practices of Australian and overseas psychologists in the assessment of refugees also would be useful. Despite the wide acceptance that there are significant issues with standardised assessment instruments, there is no research on how school and outside psychologists are currently assessing students from refugee backgrounds, and the existing strengths and weaknesses of current approaches.

In Australia, training in second language acquisition, refugee issues and indeed cross-cultural assessment in general, is typically not well covered in training courses for school psychologists. Moreover, psychologists operating outside the school system do not have ready access to training opportunities in CALD and refugee issues. These issues are significant because the overrepresentation of minority CALD students in special education settings has been acknowledged in the literature since at least 1973 (Tarjan et al., 1973, cited in Baca & Cervantes,

1978), and it appears that little change has occurred in assessment processes since that time.

Although it is beyond the scope of the current paper, a detailed discussion is clearly warranted of the culturally competencies required by psychologists who work with and assess individuals from CALD and refugee backgrounds. This would enable suitable training to be incorporated into future psychology courses. Artioli i Fortuny and Mullaney (1998) make a number of suggestions in relation to skills that can enhance cultural competency. These include: familiarity with the language and culture of the client; understanding of the cross-cultural psychology literature, including the effects of schooling on cognitive assessments; knowledge of the standardisation sample, validity and reliability of the test as it applies to the CALD client; and the competence to know when to refer an individual on or to collaborate with another professional from the same cultural or language background as the client.

For those who are not trained in cultural competency, one advantage of SPAASRB is that it is able to assist school psychologists to understand issues in relation to CALD students from refugee backgrounds as well as in providing a clear process to conduct an assessment that is based upon these understandings. It is anticipated that this process will also be useful when outside psychologists are working with the school system, because the four-stage process will already be set in place at the time of referral.

Concluding comments

The focus of this article has been to suggest a structured process for reducing bias in the assessment of CALD students from refugee backgrounds. The complex and unique experiences of students from refugee backgrounds (including trauma, first and second language acquisition difficulties, acculturation, and ineffective teaching practices) that may mistakenly lead to a diagnosis of intellectual disability can be addressed by a proactive support team approach. The SPAASRB process begins at the time of enrolment to assist with teaching and learning for all students from refugee backgrounds. Longitudinal data collected by support team members can support further assessment if required. Additional data, such as first and second language assessment, medical information, and additional history related to the refugee experience, also can be collected before a decision is made by the psychologist to use standardised psychometric tests. This information can be used as part of a comprehensive assessment process by school psychologists, and psychologists working outside the school system. If results of this assessment process suggest the need for further tests

then careful consideration must be given to the most appropriate assessments of cognitive and adaptive functioning for the student.

It is argued that all psychologists working with CALD students and students from refugee backgrounds need to adequately understand language issues, cultural differences and acculturation difficulties. Better integration of these issues into tertiary psychology curricula and development of relevant cultural competencies by the profession would improve psychologists' capacity to provide culturally appropriate psychological assessments. Although it is not realistic to assume that any assessment process will be completely non-discriminatory, with improvements in understanding of refugee issues and increased collaborative efforts, it is hoped that bias can be reduced so that more accurate diagnoses can be made.

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